



## ELECTRONIC THESIS AND DISSERTATION UNSYIAH

### TITLE

UJI AKTIVITAS ANTIJAMUR EKSTRAK METANOL DAUN SIRIH HUTAN (*PIPER NIGRESCENS* BLUME) TERHADAP PERTUMBUHAN *CANDIDA ALBICANS*

### ABSTRACT

#### ABSTRAK

Sirih hutan (*Piper nigrum* Blume) merupakan tanaman liar dari famili Piperaceae yang telah digunakan secara empiris sebagai obat. Penelitian ini bertujuan untuk mengetahui aktivitas antijamur dan menentukan besar zona hambat yang dihasilkan dari ekstrak metanol daun sirih hutan terhadap pertumbuhan *Candida albicans*. Pembuatan ekstrak dilakukan dengan metode maserasi. Terhadap ekstrak dilakukan uji fitokimia, karakterisasi, dan uji aktivitas antijamur. Uji aktivitas antijamur menggunakan metode Kirby Bauer atau difusi cakram dengan variasi konsentrasi ekstrak yaitu 5; 10; 15; dan 20%, kontrol positif nistatin, dan kontrol negatif pelarut metanol. Hasil karakterisasi ekstrak metanol daun sirih hutan memperoleh kadar air sebesar 18,45%; kadar abu total 0,25%; kadar sari larut air 4,66%; dan kadar sari larut etanol 1,66%. Hasil uji fitokimia menunjukkan ekstrak metanol daun sirih hutan mengandung saponin dan steroid. Hasil pengujian aktivitas antijamur menunjukkan ekstrak metanol daun sirih hutan tidak dapat menghambat pertumbuhan isolat klinis *C. albicans*.

Kata kunci: *Piper nigrum* Blume, ekstrak metanol, metode difusi cakram, *Candida albicans*.

#### ABSTRACT

The forest betel (*Piper nigrum* Blume) is a wild plant from the family Piperaceae that used empirically as medicine. The aim of this study is to determine the activity of antifungal and to determine the size of inhibition zone resulting from methanol extracts of *Piper nigrum* Blume leaves of the growth of *Candida albicans*. The extraction was done by maceration method. Phytochemical test, the characterization test, and the activity test of antifungal of the extract. Antifungal activity test was using Kirby Bauer or disk diffusion method with variation of extract concentration 5; 10; 15; and 20 %, with nistatin as positive control, and methanol solvent as negative control. Result of extract characterization is obtained 18,45% of water content; 0,25% of total ash content; 4,66% of water soluble extractable content and 1,66% of ethanol soluble extractable content. Results of phytochemical test showed that the methanol extract of *Piper nigrum* Blume leaves contains saponins and steroids. The test results showed that the antifungal activity of methanol extract from *Piper nigrum* Blume leaves could not inhibit the growth of *C. albicans* fungi clinical isolate.

Keywords: *Piper nigrum* Blume, methanol extract, disk diffusion method, *Candida albicans*.